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# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS—CIRCULAR 7.

JOS. A. ARNOLD, Editor and Chief.

WASHINGTON, D. C., *March 15, 1911.*

### PUBLICATIONS OF THE BUREAU OF CHEMISTRY.

NOTE.—Application for publications in this list should be made to the Editor and Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C. The editions of some of the publications are necessarily limited, and when the supply is exhausted and no funds are available for procuring additional copies, applicants are referred to the Superintendent of Documents, Government Printing Office, who has them for sale at a nominal price, under the law of January 12, 1895. Applicants are urgently requested to ask only for those publications in which they are particularly interested. The department can not undertake to supply complete sets, nor is it allowable to send more than one copy of any publication to an applicant.

#### REPORTS.

##### Report of the Chemist for the Year 1890.

Same, 1891.	Same, 1898.	Same, 1902.	Same, 1908.
Same, 1893.	Same, 1899.	Same, 1903.	Same, 1909.
Same, 1896.	Same, 1900.	Same, 1905.	Same, 1910.
Same, 1897.	Same, 1901.	Same, 1907.	

#### BULLETINS.

[In applying for these bulletins the name of the bureau as well as the number of the bulletin should be given, as "Bureau of Chemistry, Bulletin No. 13."]

Bul. 13. Foods and Food Adulterations. Pt. IX. Cereals and Cereal Products.  
Same, Part X. Preserved Meats.

14. Record of Experiments at Fort Scott, Kans., in the Manufacture of Sugar from Sorghum and Sugar Cane in 1886.

18. Sugar-producing Plants.

20. Record of Experiments Conducted by the Commissioner of Agriculture in the Manufacture of Sugar from Sorghum at Rio Grande, N. J.; Kenner, La.; Conway Springs, Douglass, and Sterling, Kans.

21. Report of Experiments in the Manufacture of Sugar by Diffusion at Magnolia Station, Lawrence, La. Season 1888-89.

26. Record of Experiments in the Production of Sugar from Sorghum in 1889.

29. Record of Experiments with Sorghum in 1890.

31. Proceedings of the Eighth Annual Convention of the Association of Official Agricultural Chemists, held at Columbian University, Washington, D. C., August 13-15, 1891.

34. Record of Experiments with Sorghum in 1891.

39. Experiments with Sugar Beets in 1893.

43. Proceedings of the Eleventh Annual Convention of Official Agricultural Chemists held at Washington, D. C., August 23-25, 1894.

44. Sweet cassava: Its culture, properties, and uses.

- Bul. 46. Methods of Analysis adopted by the Association of Official Agricultural Chemists, September 5-7, 1895.
47. Proceedings of the Twelfth Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., September 5-7, 1895.
48. Zinc in Evaporated Apples.
49. Proceedings of the Thirteenth Annual Convention of Official Agricultural Chemists, held at Washington, D. C., November 6-9, 1896.
50. Composition of Maize (Indian corn), including the Grain, Meal, Stalks, Pith, Fodder, and Cobs.
52. Experiments with Sugar Beets in 1897.
53. Chemical Composition of the Carcasses of Pigs.
55. Fertilizing Value of Street Sweepings.
56. Proceedings of the Fifteenth Annual Convention of Official Agricultural Chemists, held at Washington, D. C., November 11-14, 1898.
57. Proceedings of the Sixteenth Annual Convention of the Association of Official Agricultural Chemists, held at San Francisco, July 5-7, 1899.
58. The Manufacture of Starch from Potatoes and Cassava.
61. Pure-Food Laws of European Countries Affecting American Exports.
62. Proceedings of the Seventeenth Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., November 16-19, 1900.
63. Exhibit of the Bureau of Chemistry at the Pan-American Exposition, Buffalo, N. Y., 1901.
64. The Influence of Environment upon the Composition of the Sugar Beet.
67. Proceedings of the Eighteenth Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., November 14-16, 1901.
68. The Chemical Composition of Insecticides and Fungicides, with an Account of the Methods of Analysis Employed.
70. Manufacture of Table Sirups from Sugar Cane.
71. A Study of Cider Making in France, Germany, and England, with Comments and Comparisons on American Work.
72. American Wines at the Paris Exposition of 1900: Their Composition and Character.
73. Proceedings of the Nineteenth Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., October 2-4, 1902.
74. The Influence of Soil and Climate upon the Composition of the Sugar Beet, 1901.
75. Sugar-cane Culture in the Southeast for the Manufacture of Table Sirup. I. Fertilizer Experiments on Sugar Cane. II. Reports of Special Agents on Sugar-Cane Culture.
76. Insecticide Studies: I. Pyrethrum Powders Containing Poisonous Metals. II. A Compilation of Analyses of Insecticides and Fungicides. III. The State Laws Governing the Composition and Sale of Insecticides.
77. Olive Oil and its Substitutes.
78. The Influence of Environment upon the Composition of the Sugar Beet.
80. Adulterated Drugs and Chemicals: I. Inferior Drugs and Insidious Methods of Deception. II. Rose Geranium Oil and its Substitutes. III. Phenacetin: Methods of Analysis and Commercial Status.
81. Proceedings of the Twentieth Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., November 19-21, 1903.
82. Paris Green Spraying Experiments.
84. Influence of Food Preservatives and Artificial Colors on Digestion and Health. Pt. I. Boric Acid and Borax.  
Same, Part III. Sulphurous Acid and Sulphites.  
Same, Part V. Formaldehyde.
85. The Cementing Power of Road Materials.

- Bul. 86. Arsenic in Papers and Fabrics.
87. Some Tropical Fruits and their Products: Chemical Composition. I. A Study of Cuban Fruits. II. The Composition of Fresh and Canned Pineapples.
90. Proceedings of the Twenty-first Annual Convention of the Association of Official Agricultural Chemists, held at St. Louis, Mo., September 26-28, 1904.
92. The Effect of Water on Rock Powders.
93. Experiments in the Culture of Sugar Cane and its Manufacture into Table Sirup.
94. Studies on Apples. I. Storage, Respiration, and Growth. II. Insoluble Carbohydrates or Marc. III. Microscopic and Macroscopic Examinations of Apple Starch.
95. The Influence of Environment upon the Composition of the-Sugar Beet, 1903.
96. The Influence of Environment on the Composition of the Sugar Beet, 1904, together with a Summary of the Five-year Investigation.
97. Studies on Peaches. I. Compiled Analysis of Peaches. II. Changes in Chemical Composition of the Peach during Growth and Ripening. III. Effect of Storage on the Composition of Peaches.
98. Part I. Drug Legislation in the United States.
99. Proceedings of the Twenty-second Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., November 16-18, 1905.
100. Some Forms of Food Adulteration and Simple Methods for Their Detection.
101. The Lime-Sulphur-Salt Wash and its Substitutes.
102. Foreign Trade Practices in the Manufacture and Exportation of Alcoholic Beverages and Canned Goods.
103. Experimental Work in the Production of Table Sirup at Waycross, Ga., 1905, together with a Summary of the Four-year Experiment on Fertilization of Sugar Cane.
104. Food Legislation during the Year ended June 30, 1906.
107. Official and Provisional Methods of Analysis, Association of Official Agricultural Chemists.
108. Commercial Feeding Stuffs of the United States: Their Chemical and Microscopical Examination.
109. Some Technical Methods of Testing Miscellaneous Supplies, including Paints and Paint Materials, Inks, Lubricating Oils, Soaps, etc.
111. The Fermenting Power of Pure Yeasts and Some Associated Fungi.
112. Food Legislation during the Year ended June 30, 1907. Pt. I. Federal Laws and Laws of States and Territories, Alabama to New Hampshire, inclusive.
- Same, Pt. II. Laws of States and Territories, New Jersey to Wyoming, inclusive.
113. Injury to Vegetation and Animal Life by Smelter Fumes.
114. Meat Extracts and Similar Preparations, including Studies of the Methods of Analysis Employed.
115. A Preliminary Study of the Effects of Cold Storage on Eggs, Quail, and Chickens.
116. Proceedings of the Twenty-fourth Annual Convention of the Association of Official Agricultural Chemists, held at the Jamestown Exposition, Norfolk, Va., October 9-11, 1907.
117. Commercial Sicilian Sumac.
118. Unfermented Apple Juice.
120. The Feeding Value of Cereals, as Calculated from Chemical Analysis.
121. Food Legislation during the Year ended June 30, 1908.
122. Proceedings of the Twenty-fifth Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., November 12-16, 1908.



- Bul. 123. Metabolism of Organic and Inorganic Phosphorus.
- 124. Chemical Studies of American Barleys and Malts.
- 125. The Canning of Peas.
- 126. Harmful Effects of Acetanilid, Antipyrin, and Phenacetin.
- 127. Influence of Environment on the Composition of Sweet Corn.
- 128. Tri-local Experiments on the Influence of Environment on the Composition of Wheat.
- 129. Enological Studies. I. Experiments in Cider Making Applicable to Farm Conditions. II. Notes on the Use of Pure Yeasts in Wine Making.
- 131. Lead Arsenate. I. Composition of Lead Arsenates Found on the Market. II. Home-made Lead Arsenate and the Chemicals Entering into its Manufacture. III. Action of Lead Arsenate on Foliage.
- 133. Preparation of Cod and Other Salt Fish for the Market.

### CIRCULARS.

[In applying for these circulars, the name of the bureau as well as the number of the circular should be given, as "Bureau of Chemistry, Circular No. 2."]

- Circ. 2. Changes in and Additions to Methods of Analysis Adopted at the Thirteenth Annual Meeting of the Association of Official Agricultural Chemists.
- 3. Needed Reforms in Fertilizer Inspection. Report of the Committee Appointed at the Preliminary Meeting of the Official Inspectors of Fertilizers, 1897.
- 13. Extracts from the Proceedings of the Association of Official Agricultural Chemists, 1903.
- 16. Officials Charged with the Enforcement of Food Laws in the United States and Canada.
- 18. Suggestions to Importers of Food Products.
- 19. Methods for the Detection of Renovated Butter. (Cooperative work, Association of Official Agricultural Chemists, 1905.)
- 21. Proposed Regulations Governing the Labeling of Imported Food Products.
- 24. Analysis of the Mexican Plant *Tecoma mollis* H. B. K.
- 25. Coloring Matters for Foodstuffs and Methods for Their Detection. A Preliminary Report Made to the Association of Official Agricultural Chemists.
- 31. General Results of the Investigations Showing the Effect of Salicylic Acid and Salicylates Upon Digestion and Health.
- 33. Report on Methods of Beer Analysis.
- 34. Examination of Papers.
- 35. Report on Colors: The Solubility and Extraction of Colors and the Color Reactions of Dyed Fiber and of Aqueous and Sulphuric Acid Solutions.
- 36. Chemical Methods for Utilizing Wood, Including Destructive Distillation, Recovery of Turpentine, Rosin, and Pulp, and the Preparation of Alcohol and of Oxalic Acid.
- 37. General Results of the Investigations Showing the Effect of Sulphurous Acid and Sulphites upon Digestion and Health.
- 38. Extracts from the Proceedings of the Association of Official Agricultural Chemists, 1907.
- 41. Paper-making Materials and Their Conservation.
- 42. General Results of the Investigations Showing the Effect of Formaldehyde upon Digestion and Health.
- 43. Extracts from the Proceedings of the Association of Official Agricultural Chemists, 1903.
- 48. The Cold Storage of Apple Cider.
- 51. The Value of Peaches as Vinegar Stock.
- 52. Extracts from the Proceedings of the Association of Official Agricultural Chemists, 1909.
- 53. Suggested Modifications of the Winton Lead Number.
- 54. Analysis of Canned Peas and Beans, showing Composition of Different Grades.
- 55. The Influence of Acids and Alkalies on the Activity of Invertase.

- Circ. 56. The Determination of Total Sulphur in Organic Matter.  
 57. Experiments on the Preparation of Sugared Dried Pineapples.  
 58. The Effect of Alcohol on Invertase.  
 59. The Destruction of the Enzym Invertase by Acids, Alkalies, and Hot Water.  
 60. A Theory of the Influence of Acids and Alkalies on the Activity of Invertase.  
 61. How to Kill and Bleed Market Poultry.  
 62. A Comparison of Beef and Yeast Extracts of Known Origin.  
 63. Identification of Food Colors. A Tentative Report on the Solubility and Extraction of Certain Colors, and the Color Reactions of Dyed Fiber and of Aqueous and Sulphuric Acid Solutions.  
 66. Extracts from the Proceedings of the Association of Official Agricultural Chemists, 1910.  
 67. A Method for the Determination of Tin in Canned Foods.  
 68. Tomato Ketchup under the Microscope; With Practical Suggestions to Insure a Cleanly Product.  
 69. Improvements in the Knorr Fat Extraction Apparatus.

#### REPORTS OF SUGAR-BEET INVESTIGATIONS.

[In applying for these publications, the name of the bureau as well as the full title of the publication should be given.]

- Experiments with Sugar Beets in 1897. Published as a Part of "Progress of the Beet-Sugar Industry in the United States in 1897."  
 Same, 1898. Same, 1899. Same, 1903.  
 Analysis of Sugar-Beet Growing in the Various States.  
 Single-Germ Beet Balls and Other Suggestions for Improving Sugar-Beet Culture.  
 Sugar-Beet Pulp as Animal Food.

#### MISCELLANEOUS.

[In applying for these publications, the name of the bureau as well as the full title of the publication should be given.]

- Food Adulteration.  
 Memorial Exercises in Honor of the Late John A. Myers.  
 Model Denatured Alcohol Distillery.  
 Knife for Killing Poultry.

#### FARMERS' BULLETINS.

[In applying for these publications the number of the publication should be given, as "Farmers' Bulletin No. 52."]

- F. B. 52. The Sugar Beet.  
 135. Sorghum Sirup Manufacture.  
 269. Industrial Alcohol: Uses and Statistics.  
 359. Canning Vegetables in the Home.  
 377. Harmfulness of Headache Mixtures.  
 393. Habit-Forming Agents.  
 410. Potato Culls as a Source of Industrial Alcohol.  
 429. Industrial Alcohol: Sources and Manufacture.

#### SEPARATE REPRINTS FROM THE YEARBOOK.

[In applying for these reprints the number of the extract should be given: "Yearbook Separate No. 137."]

- Y. B. Sep. 137. Utilization of Residues from Beet-Sugar Manufacture in Cattle Feeding.  
 451. The Detail of the Enforcement of the Food and Drugs Act.  
 468. Changes Taking place in Chickens in Cold Storage.  
 479. Suitable Paper for Permanent Records.  
 485. The Manufacture of Flavoring Extracts.

[Cir. No. 7.]







